Game Design in Youth Work

Climate Change Challenge

Claire Turner

YOUTH WORK IRELAND TIPPERARY

Contents

Table of Figures

1.0 Literature Review

1.1 Introduction

The literature review focuses on four main areas; Youth Work, Sustainable Development Goals, Development Education and Games. Youth work is defined, the relationship between youth and youth workers is explored and the practice of youth work is measured so that a monetary value is put on it. Sustainable Development Goals were considered most notably Goal 13 where the topic of Climate Change would be looked at as a theme. It looks at how climate change has the potential to displace large amounts of people and also looks at the devastating results of natural disasters. Development Education was considered to examine whether it has the potential to make people more aware of the world around them and to delve into areas that they may not have before. The last subject that will be explored is games and their potential to raise awareness of social issues. It will also examine the concept of 'flow' within a game and how this can be important in the design process.

1.2 Youth Work

The Youth Work Act 2001 defines youth work as;

> A planned programme of education designed for the purpose of aiding and enhancing the personal and social development of young people through their voluntary involvement, and which is complementary to their formal, academic or vocational education and training and provided primarily by voluntary youth work organisations.

(Krueger, 1998, p. 58) states that …'Youth Work from an interactive perspective is a way of "being" as well as a way of "behaving". He goes on to say that ….' Youth workers bring themselves, their skill, and their knowledge to the moment and are sensitive to the needs of the youth and the contexts within which their interactions occur.

In the UK the National Youth Agency (2010:5) believe that the aim of youth work is ….'to support the personal and social development of young people through informal education.' It also goes on to say that ….

> It's distinctive characteristics include the voluntary engagement of young people, young people's active involvement in developing provision, the use of informal education as the primary method of youth engagement and an approach to provision that is responsive to young people's preference. National Youth Agency (2010:5)

When speaking about the relationships between young person and youth worker Young (2006:5) describes it as follows;

> The youth work relationship is one in which the young person is accepted and valued; the youth worker has faith in the young person; shows concern and empathy; and takes account of their experiences, opinions and ideas.

The National Youth Council of Ireland states that on the emergence of social and economic crisis there is a growing youth population. It also outlines that;

> Youth organisations are active in almost every community reaching over 383,000 young people. As detailed in the Indecon Report youth organisations are particularly active in supporting young people from economically or socially disadvantaged communities, with 53% of all participants coming from these areas. NYCI (2018)

In the Indecon Report it was outlined that for every €1 invested in youth work there was a return of €2.20. Through these findings it is evident that there is a value to the informal education and work that youth workers do with young people. The report also indicates that there are almost 400,000 young people involved in youth projects or youth clubs throughout Ireland with about 43.3% of young people being represented from the youth population. 53% of this number represent young people coming from a social or economically disadvantaged background. Indecon (2012:30)

This puts a lot of value on the practice of youth Work and shows that there is monetary value in its work. Although Youth Work is seen as informal education it is evident from this report that the investment in this type of work engages young people from all walks of life and is invaluable in reaching a large number of young people between the ages of 12 to 24 years of age.

1.3 Sustainable Development Goals

Sustainable Development Goals (STG) came into effect in 2016 and continue to guide the United Nations Development Programme (UNDP) and funding up until 2030. UNDP help to implement these goals through the work that they do with some 170 countries that have signed up to the goals since their implementation. UNDP (2018)

Goal 13 of SDG is set out as 'Climate Action'. This goal is set out to ...'Take urgent action to combat climate change and its impacts'. UNDP (2018)

Climate change impacts on the way people live and where they live. The displacement of people brought about by the hazards of climate change has been examined in a report compiled by the UNDP and the Overseas Development Institute (ODI)

The report states that '…. Between 2008 and 2016, sudden-onset events were responsible for 99% of internal displacement: an average of 21 million people annually.' ODI (2017) These events were hazards such as floods, wildfires, storms and extreme temperatures. It goes on to say that there are also some slow onset climate related hazards where warnings are put in place to alert people. In these cases, some people decide to move away from these areas either temporarily or permanently when there is no way for them to capable of supporting a livelihood or the area has become so changed that there is no way for people to live there again. Overseas Development Institute (2017:9)

The UNDP comments on the fact that Goal 13 has a direct impact on other goals due to the fact that we will not be able to ensure food security if we continue to suffer from adversities such as drought and we will not be able to ensure a good infrastructure if there is continued damage from adverse weather conditions suggesting that all of the Development goals are inter linked with a need for them to all work in line with each other. UNDP (2018)

The real effects of climate change were clear to be seen in the Caribbean where;

> Irma, the most powerful hurricane ever recorded in the Atlantic, left catastrophic damage as it passed over Turks and Caicos, Bahamas, Dominican Republic and Haiti. Just a few days later, colossal category 5 Maria unleashed its fury on Antigua, Saint Barts, Anguilla, Saint Martin and the British Virgin Islands. Barbuda and Dominica were decimated. UNDP (2018)

The storms not only decimated their infrastructure but also destroyed major crops and forests which influenced the livelihoods of many who were already vulnerable. UNDP (2018) goes on to say that;

> In the last 30 years, the world has seen a three-fold increase in natural disasters and five times more economic losses due to these events. In 2016 alone, more than 24 million people in 118 countries and territories were displaced by natural disasters, three times more than those displaced by conflict.

1.4 Development Education
Development Educaion.ie (2015) outline numerous definitions of Development Education that exist all of which have similarities and slight differences. They have looked at definitions

set out by The Sustainable Development Goals, Irish Aid, The UK's development Education Association and the European Confederation of Development and Relief NGO's. Through examining these they argue that there are 3 main aspects that appear in them all;

1. personal development,
2. problems to be solved, and
3. social change; specifically, in the context of human development, human rights and sustainable development. Developmenteducation.ie (2015)

IDEA define Development Education as;

> Development Education enables people to understand the world around them and to act to transform it. It engages people through a process of interaction, reflection and action towards supporting Global Justice.

> Development Education works to tackle the root causes of injustice and inequality, globally and locally. The world we live in is unequal, rapidly changing and often unjust. Our everyday lives are affected by global forces. Development Education is about understanding those forces and how to change them to create a more just and sustainable future for everyone. IDEA (2018)

Development Education is tied to the Sustainable Development Goals in that it is a key component to achieving these goals. 'It is delivered by community and voluntary organisations, development NGOs, educational institutions and networks, youth organisations, trade unions, educators, researchers and activists. IDEA (2018)

1.5 Games

There are many different genres of games and many ways in which they are played. There are board games, computer games, field games and games that can be played in the context of role play to name but a few. McGonigal (2011:21) believes that 'When you strip away the genre differences and the technological complexities, all games share four defining traits: a goal, rules, a feedback system, and voluntary participation.'

She goes on to say that if the goal of the game is compelling then the participant will grapple with this game until the challenge is exhausted. Braithwaite *et al* (2009:28) choose a more descriptive way of describing what a game is. They say describe a game as;

An activity with rules. It is a form of play often but not always involving conflict, either with other players, with the game system itself, or with randomness/fate/luck. Most games have goals, but not all (for example, *The Sims* and *SimCity*). Most games have defined start and end points, but not all (for example, *World of Warcraft* and *Dungeons & Dragons*). Most games involve decision making on the part of the players, but not all (for example, *Candy Land* and *Chutes and Ladders*). A video game is a game (as defined above) that uses a digital video screen of some kind, in some way

Cremers et al (2015) reviewed the gaming experience of a game called 'Be-Safe' to see if the game had a lasting affect and if they had learned anything from the game. The result was that players looked for more information after playing the game which in turn resulted in heightened knowledge in the subject or area the game covered. It could be drawn from this that a game can act as a catalyst to educate people on a subject that they knew less about before playing the game.

A predominant aspect of games in modern times is that of the digital form. Hazar et al (2017:320) led research into the capabilities of young people of becoming addicted to such games and how this has affected their level of physical activity.

In their research they found that 'It can be said that digital game addiction removes individuals from physical activities, whereas physical activity prevents virtual addictions such as digital game addiction'. Through their research they also found that young people who were involved in physical activity daily were less inclined to be addicted to digital games.

DiGRA (2007) on the other hand believe that;

Games for change can be more effective at reaching an audience and gaining traction if associated with a larger initiative. Smart partnering with credible, like-minded organizations can be a way to maximize the impact a game may have. Furthermore, collaboration and community features in a game's website can dramatically increase the engagement factor of interested citizens.

Although there have been games that deal with social issues DiGRA (2007) believe that this growth in awareness has not really been captured since games are meant for, first and foremost entertainment but concludes that game designers have the potential to communicate 'complex social phenomena' to make positive change in the world.

Schrier, K et al (2010) go on to say that the player has '… to engage in what various people have called "hard fun" or "serious play," rather than dismiss the game play as inherently frivolous and meaningless.'

In an article written by Sean Baron (2012) he speaks about 'flow' and how this can affect people's experience when playing a game. He speaks about Mihaly Csikszentmihalyi's studies.

He believed that if you had a balance that was proportional in the area of skill and Difficulty in a game, a person's experience of that game would send them into something that he called a 'Flow State'.

He goes on to say that while people are in these flow states they experience the following;

1. Extreme focus on a task
2. A sense of active control
3. Merging of active awareness
4. Loss of self-awareness
5. Distortion of the experience of time
6. The experience of the task being the only necessary justification for continuing it. Baron (2012)

1.6 Conclusion

Through the examination of the topics outlined in the literature review it can be appreciated and realised that a youth lead approach in this type of project would be the best approach. Through the academic analysis it is also important to keep in mind that when developing and designing a game a 'flow state' is what would be the main aim of the game. This will make the game interesting to play and keep the interest of the participants who are partaking in it.

Game Development

2.1 Introduction

A gaming group in Tipperary town; established for approximately a year, undertook the task of developing a game. The group of 15-18 youths, predominantly male with 4-5 females attending regularly had a keen interest in gaming. They were between the ages of 14-17 years old.

This section will describe how the task of developing a game was undertaken, how the group was organised, their input and the conclusions that were arrived at. It will also demonstrate how the group emanated their concepts and how they input these into their design and how decisions in the design came about.

2.2 The Task

The task set out for this research was to develop a game that is fun and interactive. A game that will allow its participants to learn something about a social issue that influences everyone in modern day life.

It was essential for the youth worker to encourage the group to have an input and interest in the subject matter. It was a challenge to develop a strategy that would not only ensure that an artefact of a game was created but also that the group were entrenched in the design process either through the concept design or through the art work of the game itself.

It is believed that through the interests of young people and the work of youth workers, youth work can play a leading role in tackling major social issues in a way that is creative and inspires the young people that attend group on a weekly basis.

2.2.2 Group Interaction

When the concept of designing a game was put forward to the group they were extremely interested for varying reasons. Some were interested in coming up with the concepts of the game while others were drawn more so to the prospect of designing the board itself and/or the possibly the creation of characters. From the start of the project the group showed themselves to be a group with a variety of talents which would be vital to the success of it.

2.2.1 Methodology – Group Workshops

Group workshop sessions were conducted to look at different possibilities and to establish the types of games that they thought were interesting and for what reason. This would also allow the youth worker to decide what direction the group would like to go in and whether a theme would arise from this.

Through weekly group sessions with the youth worker facilitating ways in which the group could achieve their goals. The group, from the very beginning, acted as the driving force in the development of the game.

This coincides with the mission of Youth Work Ireland (YWI) Tipperary

> To work through a rights-based, youth-led approach to foster learning, innovation, hope and high expectations in young people, their families and their community. YWI Tipperary (2017)

2.2.3 Workshop Sessions

A space was created so that the group could develop their ideas freely which was the initial process in making a game. The group was split into three smaller groups to aid in the process as the group as a whole would be difficult to work with in the initial stages. Smaller groups would also allow the young people to feel more confident in expressing their opinions. It was seen as an opportunity for numerous ideas to stem from the workshop and to see how the young people would work together.

They were instructed that they were free to come up with any ideas as a group in a time allocation of 1hr30mins. The groups had at their disposal materials such as flip chart sheets, markers, scissors, coloured paper and rulers as well as the option to request other materials if they wished to use them.

After some initial trepidation there was lots of discussions within the groups. The youth worker went from group to group to answer any questions and to ensure that they had everything they needed.

Smith (2001:53) says;

> Such communal leisure groups provide (i) a means by which people with common enthusiasms can exchange information, guidance and specialist products, (ii) give opportunities for collective rather than individual projects

What transpired from the three groups was more than could have been expected from the them within such a short period of time. Each group had a game to show and describe at the end of the session. They were visibly excited and optimistic about the work they had completed. At the end of the session each group delivered a positive presentation where they described their game and how it is played. The pictures that follow are what they came up with.
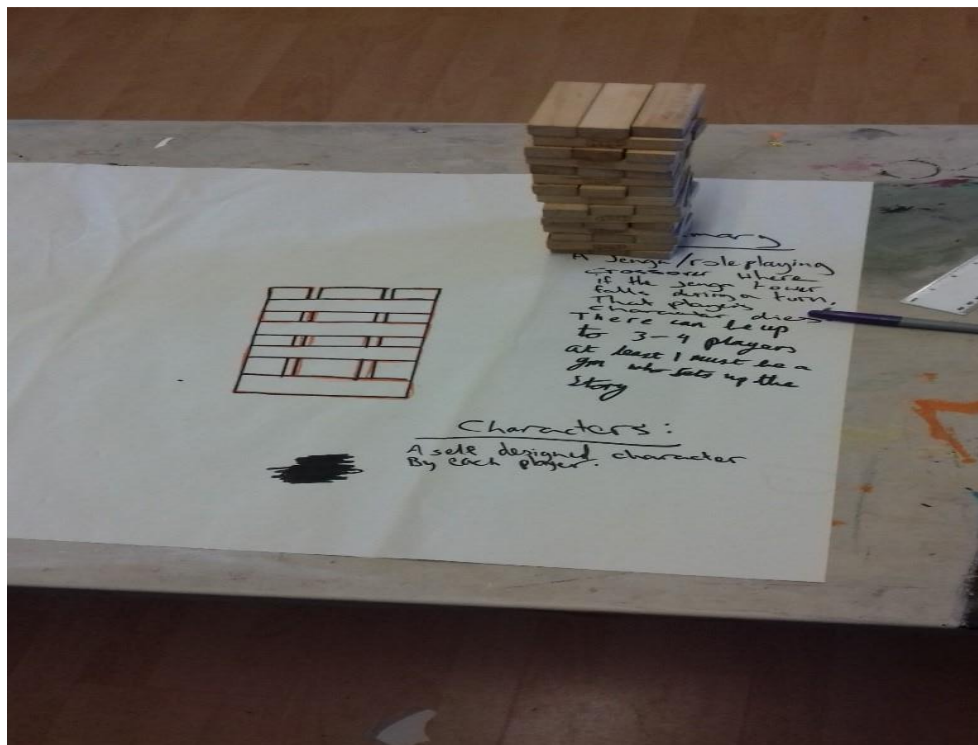
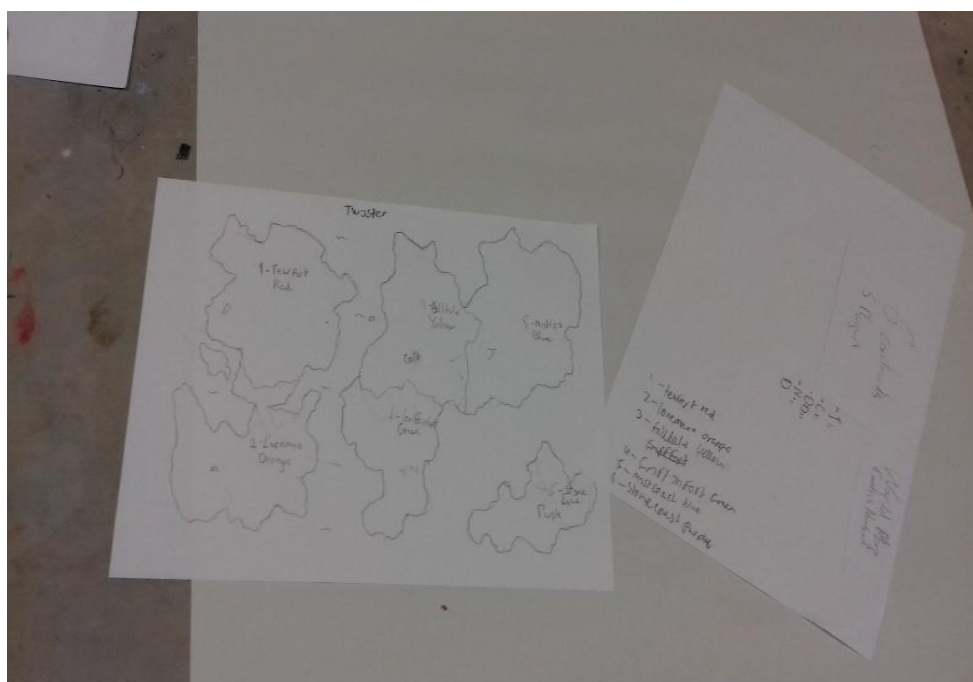**Figure 1: Jenga extension game**

Figure 2:The Maze Game

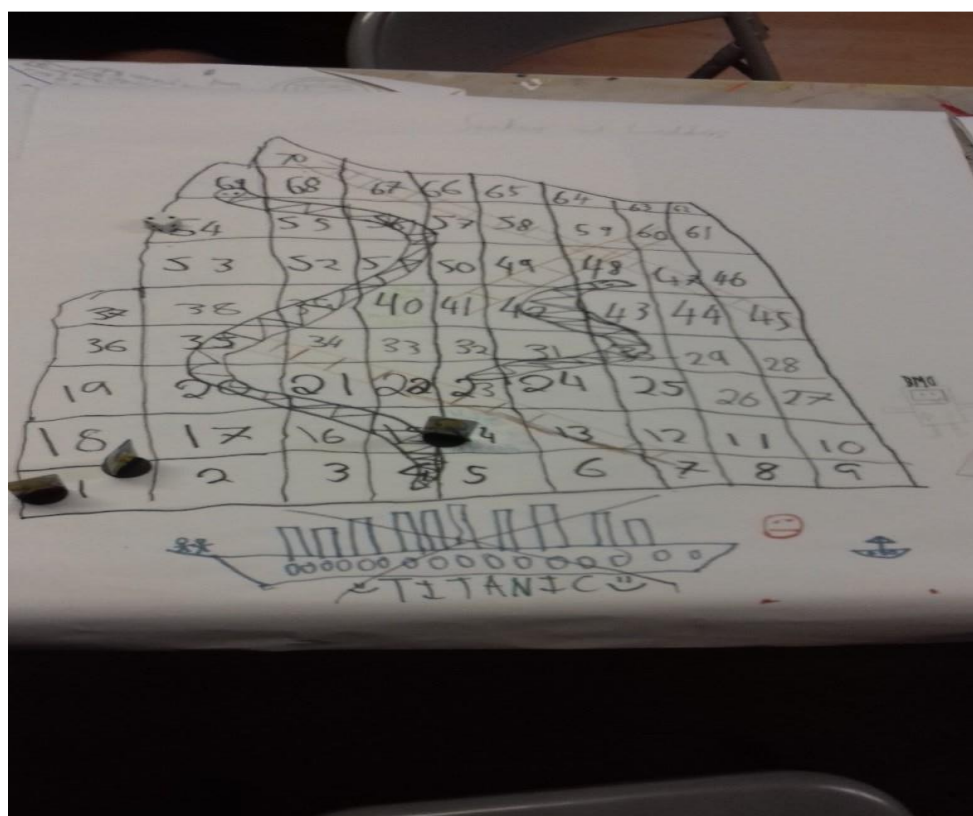**Figure 3:New Worlds Game**

Figure 4: Titanic & Iceberg Game

2.2.4 Group Work Reflection

The session following the preceding workshop, the group discussed what they had discovered from their ideas. From their work they decided to develop the theme of Climate Change for the purpose of an interactive game. They were interested in developing the theme further and were looking forward to how they could develop their game further.

The group also discussed the possibility of making the game a digital game. Although a few avenues were looked at it was decided in the end that a board game would be a more straightforward and practical option. This was due to the time constraints for the design of the game. The process of designing and producing a digital game would take a far longer time and would be a lot more technical. The resources that were available were also looked at and it was evident that a digital game would not be possible at this time. A board game was decided to be the better and more sensible option and work began on the design process.

2.3 Ideas

What followed were group times where the group investigated what Climate Change was and how it had come about and put all of these on paper so that they could reflect on them when designing a board and cards for the game.

The subsequent sessions with the group allowed them to explore the theme and study the subject matter in more detail.

Figure 5:Investigation into Climate Change

2.3.1 Brainstorming

The group then came up with the key elements of what they considered to be important to the game and what they felt should be included. These were recorded on flip chart sheets and kept so that they could refer to them later.

Figure 6:Climate change game ideas

2.3.2 Paper Prototypes

Once the group had completed coming up with some ideas and had brainstormed the concept of the game for some time they felt that they were ready to look at how the game would be presented. To do this they again used flip chart sheets to discover what would be aesthetically pleasing and inviting. The group used the flip chart sheets to come up with a 'mock-up' of the board so that they could try the game out to see if it would work in practice.

There was ample time given to the group to discover what they thought would make the game challenging and interactive. Through this time the group discovered that the original concept was possibly too easy. For this reason, they decided to add another layer to the game by adding the timeframe around the board. They felt that this would add more debt to it and allow the players to ask more questions.

Another decision they made in this process was to add spaces with an arrow symbol which would send players to another card to pick up. This would add a layer of frustration to the game and keep the players interested and on their toes in their quest to get to the finish.

2.3.3 Rapid Iterative Design

Through gathering data from the prototypes of the game that the group came up with I worked together with our support worker and the gaming group to see what way they would like the board to look. A smaller group from the gaming group came together outside of their normal group time to look up ideas, predominantly maps of the world to see what they wanted it to look like.

Once an idea was decided on our support worker worked with the group to make the base of the board a reality on a coffee table that I had sourced for the group. This was 'mapped' out and later painted by the larger group once colours had been decided for all the continents. What was created was something which the group were really happy with.

The smaller group came together again to decide how the spaces would go around the board. A large sheet of clear plastic was sources for the group to place on the map of the world so that they could trace where the path for the spaces would go in around the board. This was transferred directly to the board with the assistance of our support worker and the spaces were added in and painted.

The final result of the board design was now completed with the group very happy with the result and excited to see their ideas come to realisation.

It was important during this stage of design of the group that I allowed the creativity of the group to continue while also considering and placing importance on the dynamics throughout. At certain points parts of the larger group lost interest in certain aspects of the design process. It was for this reason that I decided to form a small group to work on this area as they were more passionate about completing and deciding on the aesthetics of the board.

2.3.4 Character design

For the remaining young people in the gaming group they took interest in forming characters for the moving markers for the game. They worked on this in their group time. This ensured that the entire group were involved in the process.

Through this process they expressed their interest in constructing characters that were 'cartoon like' and fun to look at. Another aspect that they wanted to include was that they would represent real life people who represented real change in the area of Climate change.

At the beginning it was hoped that the young people in the group would draw these characters to be the moving parts of the game. This became difficult as the members of the group who wanted to evolve these characters were in an exam year and found it difficult to dedicate the time that would be involved in doing this. For this reason, I took this little project on board. I wanted to stay true to what the group wanted and sourced cartoon characters of famous and well known environmentalists to represent what they wanted for the prototype of the game.

The six markers/characters were;

- Sir David Attenborough-Broadcaster, Naturalist and Environmental Activist
- Albert Einstein-Physicist and developed the Theory of Relativity
- Vandana Shiva-Indian scholar and Environmental activist
- Mary Robinson-Former Irish President and founder of The Mary Robinson Foundation for Climate Justice
- Paul Watson-Captain of the Sea Shepard for Greenpeace. Marine wildlife conservation and Environmental activist
- Wangari Muta Maathai-Kenyan environmental political activist and Nobel Peace Prize winner

There is an added opportunity for more knowledge sharing through the conversations created through the markers of the game.

3.0 Game Design Document

3.1 Introduction

In this chapter the young people developed their ideas and constructed the board for the game. They researched different games that had similar elements and looked at the rules of games to get a clearer idea of how they would build their game to be something that could be played while raising awareness at the same time. To do this they followed a game document to ensure that they would not overlook any elements in the design process that would be seen to be important in the construction and development of the game.

3.2 Influences and Sources

The main inspiration for the game came from a three different elements:

The increased concentration on the Sustainable development goals through the work being done within the youth organisation I work in, Youth Work Ireland Tipperary. This has given the young people that we work with a keen interest in these also through different projects, groups such as Social Action group and also through their learning in school.

Through the young people of the Gaming Group. Through their creativeness, work and dedication to the project. All concepts and ideas have come from them.

Through researching online, we discovered there were other games who used the map of the world as the basis to their board and different ways in which they did this. The idea of using a coffee table as the main board also came from the research that was carried out.

3.3 Aim of the Game

The main aim of the game is to raise awareness around issues that influence climate change. To do this the group wanted to create a board game that would encompass all that they had learned about, not only what climate change was but to also understand how it came about.

They wanted to do this in two ways.

1. To have a set of cards that included real facts about natural disaster and what could influence these in either a positive or negative way

2. To include a time period or era in order to understand where the problem may have started

3.4 Target Audience

The main objective of this game is to raise awareness o The target audience for this game are families and educational institutions so as to educate young people about the impacts of Climate change.

The main objective of the game is to raise awareness and could be used where teaching about the environment, learning about the Sustainable Development goals and to also look at the impact that we have on Climate change over time since the industrial revolution.

3.5 Design

3.5.1 Design Goals

For the Board game the main design goals are:

- A board illustrating the map of the world with continents clearly defined
- Four coloured areas at each corner to place the corresponding coloured cards
- A timeline that runs along the perimeter of the board, splitting the board into four time periods or eras
- A simple game that is easy to understand and commence play
- A game with clear objectives

3.5.2 Board Design

- Coloured spaces and eras are placed on a map of the world. Eras run around the edges of the map while the coloured spaces are on the map of the world.
- The first era runs from the year 1850-1870 which also represents the start of the Industrial Revolution.
- The second era runs from the years 1871-1925. This represents the Industrial revolution which bringing with it Industrial production and inventions that have increased societies dependence on fossil fuels.
- The third era runs from the years 1926-1980. A time of mass deforestation around the world which has had an impact on various elements including climate change.

- The fourth era runs from the years 1981-2025. This encompasses not only the major influences that climate change has on our planet but also what we think may happen in the near future.
- This involves increased incidences of natural disasters but also includes some changes that can be made to improve our impact on Climate Change.
- Arrow spaces – If you land on these spaces there are corresponding cards that the player will have to pick up. These are hard hitting facts about Climate Change that will make it even harder for the players to get to the finish line of the game

The youth group were adamant that a time line would be added to the game to show how much we have influenced climate change over the short span of under 200 years. They felt it would be important to include the industrial revolution to understand this transition in time and to have a much better overview of what they thought were the major influences in history that were significant in where we stand with Climate change today.

Figure 7:Risk Board game

Figure 8:Board game made on coffee table

Figure 9: Our board game design in progress

3.5.3 High Concept

The main concept of the game is to raise awareness of the issues that affect Climate change. It is a race to the finish where players compete to get to the end trying to avoid events such as natural disasters which moved a player backwards on the board.

3.5.4 Game Concept

Players roll a dice to move around the board eventually bringing them to the end to win the game. The player essentially travels around the world avoiding 'disaster cards'. These disasters cause the player to regress back a few spaces or miss a go.

As the players make their way around the board they will be required at different stages to pick up cards from different time periods. These cards will give them a fact and an instruction causing them to move forward, backward or to miss a go.

3.5.6 Game Play Overview

- Roll the dice to advance on the board

- Players must mark the space they advance to with the choice of six different markers who are distinctive and recognisable people. They range from environmental activists and scientists.

- When a player lands on a space that requires them to pick up a card they must do so in the era that they are in at that time.

- Eras are clearly marked on the board and each era is represented by a specific colour

- Once the card has been read and instructions followed the next player must take a go

3.5.7 Game Flow Summary

- This game is for 2-6 players.

- Each player rolls the dice (the highest roller begins the game)

- The player advances the amount of spaces indicated by the rolled dice

- Rolling a 6 earns a player an additional role

- Players alternate turns in a clockwise direction

- If a player lands on a card space, they must pick a card from that era.

- The card must be read out and the player must follow the instruction on the card.

- Play continues until the winner reaches the end of the board.

The game has four sets of cards. The colour of the cards are Red, Blue Green and Yellow.

- The Red cards represent the years 1850-1870

- The Blue cards represent the years 1871-1925

- The Green cards represent the years 1926-1980

- The Yellow cards represent the years 1981-2025

- Arrow cards with hard hitting facts about Climate change

Each set of cards have a mixture of disaster cards and innovation cards. The player will not know whether a disaster (regress or miss a turn) or an innovation (advance) will turn up.

3.5.8 Winning the Game

- To win the game the players must go through the board spaces trying not to land on a space that will require them to miss a turn or encounter any 'disasters'.
- Each card represents a fact about that time in history whether it be good or bad
- This dictates how far along or behind you are on the board.
- Throwing a dice determines how many spaces a player can move.
- If the player lands on a space that requires them to pick up a card, they must do so and follow the directions set out on the card.
- If a player lands on a space marked by an arrow the corresponding card must be picked up and the directions followed
- The winner is the first player to reach the end of the board

3.6 Gameplay

3.6.1 Game Progression

Within the game each player must take turns in a clockwise direction. The progression of each player relies on where the players land on the board. The game is dictated by the cards in the game and where the dice leads each player to land on the board

3.6.2 Mission/Challenge Structure

The challenge structure of this game is to make your way around the board trying to avoid the cards that will instruct you to regress in the game. This will be achieved by chance and by the role of the dice. This can also be achieved if the players pick a 'good' card that will allow them to progress on the board.

3.6.3 Puzzle Structure

The main puzzle structure of this game is trying to figure out how you can get around the board a quickly as possible to become the winner of the game.

3.6.4 Objective

The objectives of the game are that the people playing will have a fun and interactive time where they will not only have the opportunity to get to know facts about the impacts of

Climate Change but will also compete against each other through a race to the end to become the overall winner of the game.

3.6.5 Play Flow

The game flow for the players will be exciting and full of trepidation through the anticipation of landing on a space that requires you to pick up a card. The anticipation will lie in the fact that the player will not know if they are picking up a 'disaster' card or a 'good' card.

Figure 10 Finished Prototype of game

4.0 Reflection

In all it has been an amazing experience working with such a dynamic, creative and imaginative group of young people who worked hard at coming up with a game that I can honestly say was youth lead from the beginning. Although the final touches needed to be completed by myself and the support worker all the concepts, ideas and design work were completely theirs.

The one thing I would say about the process that I would change is to be more realistic about the time it would take to complete and to possibly split such a large group into the areas of interest they had rather than trying to keep them all involved in every aspect of the design process which may have saved time. Also, consideration needs to be given to the fact that a lot of the young people involved were in an exam year and had school holidays where they were not always available to give their time

Throughout the process of designing a game with the youth group it has been one of change and reflection on what would be the best way to facilitate the group. On a weekly basis there were new ideas and thoughts on what would work well and what they would like to add.

In some cases, I was overwhelmed with the knowledge and imagination that the group brought to the table and had to figure out a way in which I could aid them in what they wanted to achieve but also had to recoil on where I felt that their ideas were unachievable and unrealistic.

I was very fortunate to have a group that were willing to go back to the drawing board at a couple of occasions to re-examine the elements of the game which were most important to them always keeping in mind what the original theme and plan was while still taking into consideration ideas that were creative and imaginative.

What we ended up with is something that I feel has a universal spread of all of these concepts coming to fruition.

Once the main body of the game had taken shape it was difficult to keep the group focused as there were a number of people in the group who were pre-occupied with exams and were not present in the group every week. The fact that the group were only in once a week further made it difficult to push the game to the final stage of completion. They sometimes wanted to have free time rather than working on the project every week which was understandable and this was accommodated where possible.

The making of the board itself was done using an old coffee table that I sourced using the top of it as the board. I enlisted the help of one of our support workers, who is also fortunately and artist to help the group in deciding and designing the main board for the game which turned out to be an amazing feature for the room as well as a functional game.

Pros:

- A board game based on a coffee table that can be adapted to a board easily

- Simple and quick rules that are easy to follow

- Game pieces that are distinguishable and easy to put in place

- Use of coloured markers that are used as space gainers

Cons:

- The boards set of cards may need to be up-dated from time to time to make it more relevant

- More cards may need to be added to make the game more interesting

- There may not be enough of a challenge within the game to make people want to play it over and over again

4.1 Further Youth Work

There are various ways in which the development of this game can be used to further what we do as Youth Workers. The understanding from the commencement of this game was to engage a Gaming group through the design of a game that they would take ownership of and in the end see and experience their work and commitment to the project.

It is felt that this can be developed even further by doing what the objective of the game wants to do. Raise awareness around the implications of Climate change and to raise awareness around the 13th Goal from the Sustainable Development Goals.

On the return of the Gaming group after the summer holidays it will be suggested that they present the game to Primary schools in their area and play the game with 5th and 6th class groups to further their message in a fun an interactive way.

To do this it will be asked of the group to look at the possibility of taking part in FLIP (Future Leader Induction Training) which is a two day programme delivered by the organisation to young people aged 15-18 to become youth leaders to prepare them to present the game to small groups.

This will not only ensure that young people in Primary School learn more about the Sustainable Development Goals but will also develop the skills and confidence of the young people in the Gaming group.

Through the importance of the Sustainable Development Goals there is also the possibility that the game could be adapted to represent different goals and further the learning. This can be achieved easily through using the board as a basis and changing the cards that you use to adapt it to represent other issues that the goals represent.

5.0 Bibliography

- Baron, S (2012) *Cognative Flow: The Psychology of Great Game Design,* [online] available: https://www.gamasutra.com/view/feature/166972/cognitive_flow_the_psychology_of_.php [accessed 26/08/18]
- Braithwaite, B., Schreiber, I., (2009) *Challenges for Game Designers,* United States: Course Technology CENGAGE Learning
- Cremers, A., Stubbé, H., Van der Beek, D., Roelofs, M., Kerstholt, J., (2015) *Does playing the serious game B-SaFe! make citizens more aware of man-made and natural risks in their environment?* Journal of Risk Research, Vol. 18, No. 10, 1280–1292, http://dx.doi.org/10.1080/13669877.2014.919513
- Development Education.ie (2015) *Doing development Education: Ideas and Resources, A Starters Guide,* [online], available: https://developmenteducation.ie/feature/doing-development-education-ideas-and-resources-a-starter-guide/2/ [accessed 20/08/18]
- Frasca, G (2001) Video games as a means for critical thinking and debate, [online] available: http://www.ludology.org/articles/thesis/FrascaThesisVideogames.pdf [accessed 01/11/17]
- Frasca, G (2001) Video games as a means for critical thinking and debate, [online] available: http://www.ludology.org/articles/thesis/FrascaThesisVideogames.pdf [accessed 01/11/17]
- Hazar, Z., Tekkursun Demir, G., Namli, S., Turkeli, A (2017) *Investigation of the relationship between digital games addiction and physical activity levels of Secondary school,* Niğde Üniversitesi Beden Eğitimi Ve Spor Bilimleri Dergisi Cilt 11, Sayı 3, 2017
- IDEA (2018) *Development Education,* [online] available: https://www.ideaonline.ie/development-education [accessed 20/08/18]
- Indecon (2012) *Assessment of the Economic Value of Youth Work,* Dublin: National Youth Council of Ireland
- Krueger, A, M (1998) *Interactive Youth work practice,* USA: Child Welfare League of America

- McGonigal, J (2011) *Reality is Broken, Why Games make us better and How they can change the world,* New York: The Penguin Press
- National Youth agency (2010*) Valuing youth Work*, Leicester: National Youth Agency
- NYCI (2018) *Youth Work Policy,* [online] available: http://www.youth.ie/advocacy/youth_work_funding [accessed 20/08/18]

- Piaget, Jean (1991). La formación del símbolo en el niño. Imitación, juego y sueño. Imagen y representación. Fondo de Cultura Económica, Buenos Aires
- Sarah Opitz Stapleton, Rebecca Nadin, Charlene Watson and Jan Kellett (2017) *Climate change, migration and displacement, The need for a risk-informed and coherent approach,* London: Overseas Development Institute
- Schrier, K., Gibson, D (2010) Ethics and Game Design, New York: Information Science Reference
- Smith, M (2001) *Developing Youth Work,* Open University Press: Milton Keynes

- Swain, C (2007) *Designing Games to Effect Social Change,* USC School of Cinematic Arts, Proceedings of DiGRA 2007 Conference, Los Angelas, 805-809
- UNDP (2018) *Sustainable Development Goals,* [online] available: http://www.undp.org/content/undp/en/home/sustainable-development-goals.html [accessed 20/08/18]
- UNDP (2018) *The Reality of Climate Change,* [online] available: http://www.undp.org/content/undp/en/home/ourwork/ourstories/the-quiet-after-the-storm.html [accessed 20/08/2018]
- Young, K (2006) *The Art of youth Work,* 2nd ed., Dorset: Russel House Publishing
- Youth Work Act 2001. http://www.irishstatutebook.ie/2001/en/act/pub/0042/index.html [accessed 20/08/18]

- Youth Work Ireland Tipperary (2017) *Our Mission,* [online] available: http://youthworktipperary.ie/about-us/ [accessed 01/11/17]